SYNONYMICAL NOTES ON THE GENUS CERCERIS—IV1

(Hymenoptera: Sphecidae)

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Further studies of type material of the genus *Cerceris* have revealed the following instances of synonymy.

CERCERIS COMPAR GENICULATA Cameron, new status

Cerceris geniculata Cameron, 1890. Biol. Cent.-Amer., Hym. 2:113. ♀. Mexico, Cuautla.

Cerceris feralis Cameron, 1890. Biol. Cent.-Amer., Hym. 2:113-4. 3. Mexico New synonymy.

The holotype female of *C. geniculata* Cameron is in the British Museum (No. 21.1,366). The holotype male of *C. feralis* Cameron is in the British Museum (No. 21. 1,372). I consider *geniculata* to be a Mexican race of *compar* Cresson of the eastern United States.

CERCERIS COMPAR ORESTES Banks, new status

Cerceris orestes Banks, 1947. Psyche 54:13-14. Q, &. Patagonia, Ariz.

The holotype female of *C. orestes* Banks is in the Museum of Comparative Zoology, Harvard, (No. 27637). I consider *orestes* to be a southwestern race of *compar* Cresson.

CERCERIS CRIBROSA Spinola

Cerceris cribrosa Spinola, 1841. Ann. Ent. Soc. France, 10:119-20. 9, 3. Am.: Cayenne. (French Guiana, Inini)

Cerceris pullatus F. Smith, 1873. Ann. Mag. Nat. Hist. 12:105-6. Q. St. Paul, Brasil. New synonymy.

Cerceris albimana Taschenberg, 1875. Zeitschr. f. d. ges. Naturw. 45:395. \circ . Venezuela. New synonymy.

A female apparently determined by Spinola as *C. cribrosa* Spinola is in the Institute e Museo di Zoologia, Torino, Italy. This was selected and labeled a neotype by the present author. The holotype female of *C. pullatus* F. Smith is in the British Museum, (No. 21.1,409). The original cotype series of *C. albimana* Taschenberg consisted of two females. The first of the two was selected and labeled "Lectotype" by the present author. These types are in the Zoologisches Institut, Martin-Luther-University, Halle (Saale), East Germany.

CERCERIS DILATATA Spinola

Cerceris dilatata Spinola, 1841. Ann. Ent. Soc. France, 10:118. 3. America:

Cayenne. (French Guiana, Inini)

paper No. 417, Department of Entomology.

¹ These studies are being financed by grants from the National Science Foundation and General Research administered by the Graduate School, Oregon State University. Published with the approval of the Monographs Publication, Committee, Oregon State University. Research

Cerceris contracta Taschenberg, 1875. Zeitschr. f. d. ges. Naturw. 45:396. Q. Brasilia. New synonymy.

Cerceris olymponis Strand, 1910. Zool. Jahrb., Zeitschr. f. Syst. 29:140. Q. Asuncion, Calle Olympo, Paraguay). New synonymy.

A male subsequently determined by Spinola as Cerceris dilatata Spinola is in the Instituto e Museo di Zoologia Turin (Torino), Italy. It has been designated as the neotype by the present author since the type specimen is no longer extant. A female of the original cotype series of three of Cerceris contracta Taschenberg has been selected and labeled a lectotype by the present author. This series of types of the latter species are at the Zoologisches Institut, Martin-Luther-University, Halle (Saale), Germany. The holotype female of Cerceris olymponis Strand is at the Zoologisches Museum, Humboldt University, Berlin.

CERCERIS INSOLITA Cresson

Cerceris insolita Cresson, 1865, Proc. Ent. Soc. Phil. 5:129. 3. Ill. Cerceris intractibilis Mickel, 1916, Trans. Amer. Ent. Soc. 42:411. 9. Child's Point, Neb. New synonymy.

The holotype male of *C. insolita Cresson* is in the Philadelphia Academy of Natural Sciences (No. 1954). The holotype female of *C. intractibilis* Mickel is in the University of Nebraska, Department of Entomology.

CERCERIS MORRAE Strand

Cerceris morrae Strand, 1910. Zool. Jahrb., Zeitschr. f. Syst. 29:135-6. ♀. Villa Morra, Paraguay, S. Am., 2, XII, '04 (J. D. Anisits).

Cerceris paraguayana Strand, 1910. Zool. Jahrb., Zeitschr. f. Syst. 29:138-9. Q. Villa Morra, Paraguay, 10, I, 1905 (J. D. Anisits). New synonymy.

The holotype females of both species are at the Zoologisches Museum, Humboldt University, Berlin.

CERCERIS RUSTICA Taschenberg

Cerceris rustica Taschenberg, 1875. Zeitschr. f. d. ges. Naturw. 45:393-4. Q. Rio de Janeiro.

Cerceris asuncionis Strand, 1910. Zool. Jahrb., Zeitschr. f. Syst. 29:136-7. S. Villa Morra bei Asuncion, Paraguay. New synonymy.

The type female of *C. rustica Taschenberg* is at the Zoologisches Institut, Martin-Luther-Universität, Halle (Saale), Germany. The holotype female of *C. asuncionis* Strand is at Zoologisches Museum, Humboldt University, Berlin.

CERCERIS SIMPLEX LARVATA Tashenberg, new status

Cerceris larvata Taschenberg, 1875. Zeitschr. f. d. ges. Naturw. 45:391. 3. Brazil (Mendoza).

The holotype female of C. simplex F. Smith (Cat. Hym. Brit.

Mus. 4:462, 1856) from Santarem, Brazil, is in the British Museum (No. 21.1,438). The type male of *C. larvata* Taschenberg is at the Zoologisches Institut, Martin-Luther-University, Halle (Saale), Germany. I consider that *larvata* is only subspecifically distinct from *simplex*.

NOTES ON THE BIOLOGY AND DISPERSAL OF MELANOPHILA

(Coleoptera: Buprestidae)

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There have been many accounts of the attraction of several species of Melanophila to smoke and fire. Linsley (1943) summarized the pertinent literature and concluded that beetles of the subgenus Melanophila are normally attracted to forest fires and that they oviposit in scorched coniferous wood. Because these insects fly to smoke and are stimulated by heat, they are often attracted to several sources of smoke and heat, other than forest fires, such as oil fires (Van Dyke, 1926), burning sawdust and slash (Van Dyke, 1928), cement plants (Linsley, 1957; Linsley and Hurd, 1957), smelter plants (Linsley, 1933), tar extraction plants (Champion, 1918) and to sugar mills (Van Dyke, 1928). According to Linsley (1943) these insects appear to be attracted over long distances to these sources of fires (up to 60 miles in some cases), and there seems to be no doubt that normally they are able to detect smoke many miles away from forest fires and are able to fly great distances to the burnt over areas. In this manner dispersal takes place over a very large area.

The habit of flying to sources of heat and smoke is found in several species of *Melanophila*. Sloop (1937) separates the genus into three subgenera with the subgenus *Melanophila* characterized by the presence of a distinct pit contiguous to the lateral margin of the middle coxal cavity; and he reports that it is only those species with mesosternal pits that fly to fires. Although Sloop lists six of these species in North America, there are references to other species flying to fires in other parts of the world. Beeson (1941) mentions that in India the adults of *M. coriacea* Kerremans and *M. picta indica* Théry are attracted to forest fires and burnt trees, and Champion (1918) found specimens of *M. ignicola* Champion attracted to the heat and smoke from a tar extracting